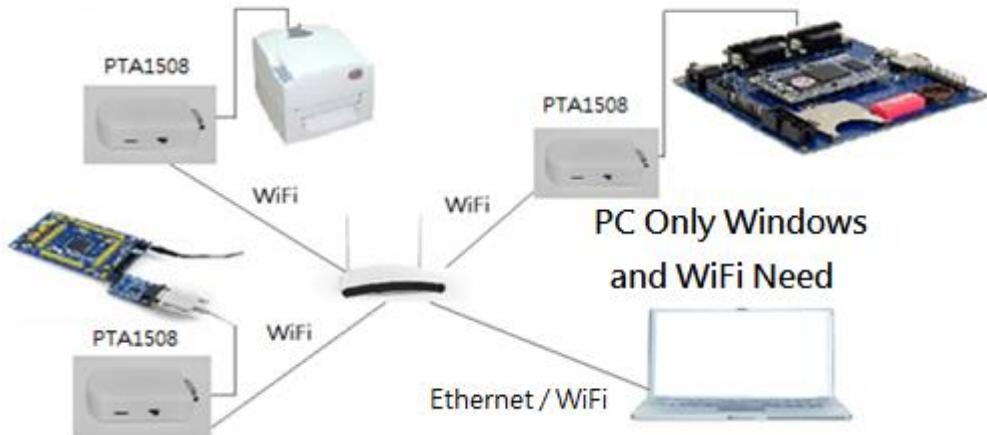


# WiFiToUartTool(AIR-UR/PTA-1508)

## User Manual

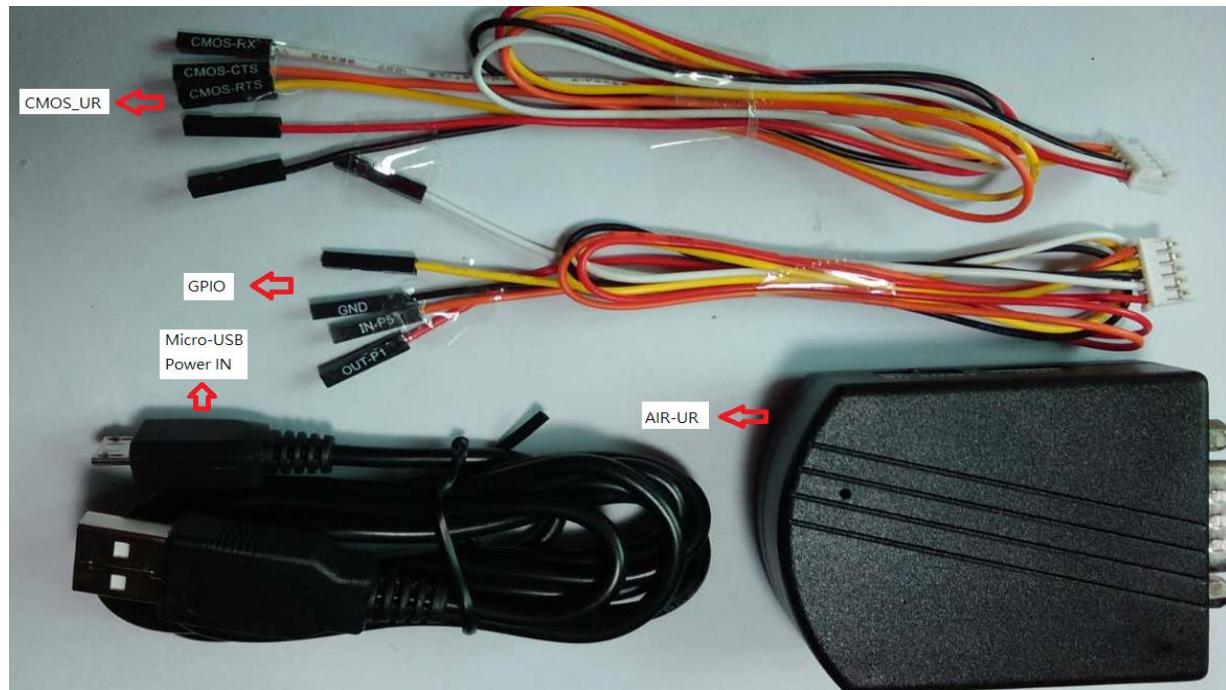
4 AIR-UR control by Windows at same time



# Contents

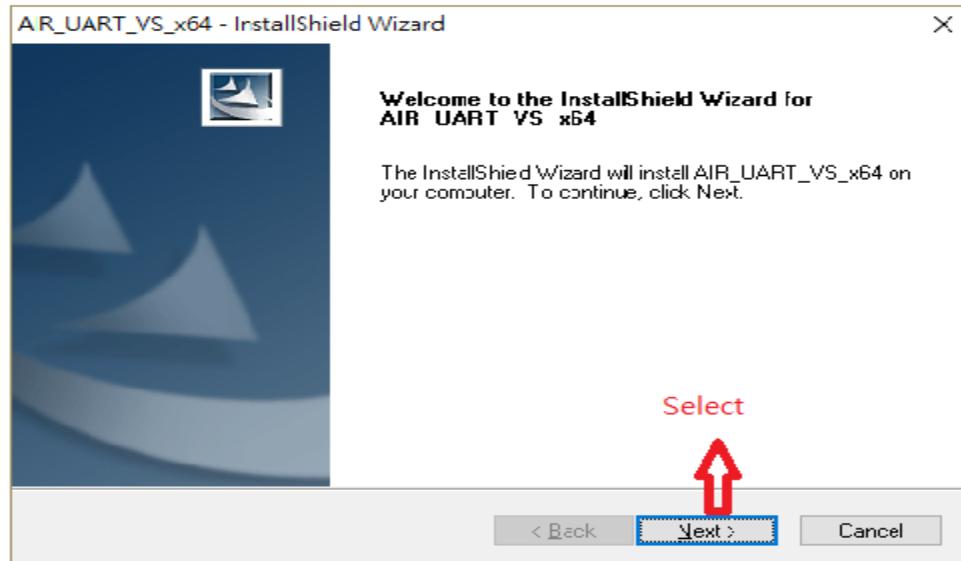
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## Package Contains :

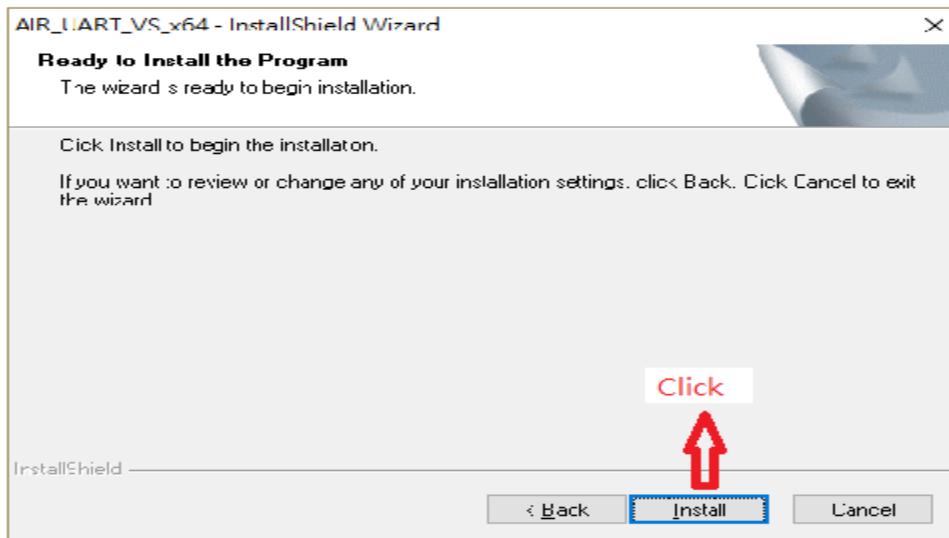


## Installation (AIR-UR) Driver and AP First For (Win/7/8/10):

1. Download (AIR\_UART\_VSx(64/32).rar) from ( ) and decompress it, then double click (AIR\_UART\_VSx(64/32).exe). (64/32) means your windows system is 32 or 64 bit!
2. Click "NEXT"



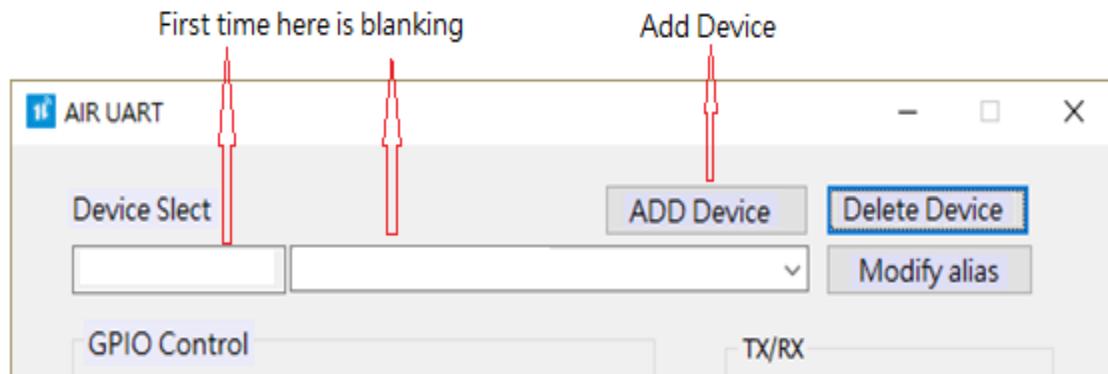
3. Click "Install" , and wait for installation complete.



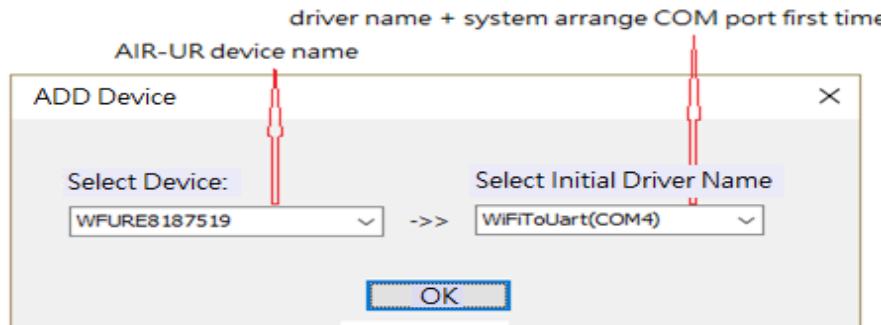
4. After finish installation please restart the Windows system.
5. **Be sure your "AIR UART" AP is on the desktop every time you work with "AIR-UR Device"**

## Add New AIR-UR Device :

1. Power on the “AIR-UR device” by USB cable. Then check blue LED is flash slowly.
2. Make sure “AIR UART” AP is on the desktop, then let your PC WiFi connect directly to “AIR-UR device” with SSID: “WFURxxxxxxxx” and password: “12345678” .
3. Open “AIR UART” AP dialog, and click “Add Device”

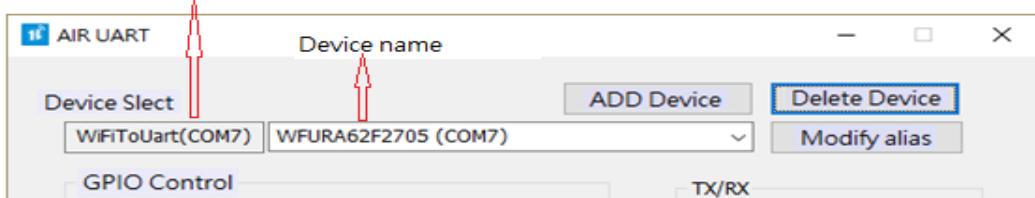


4. Select device and driver (driver name + original COMx), click "OK"

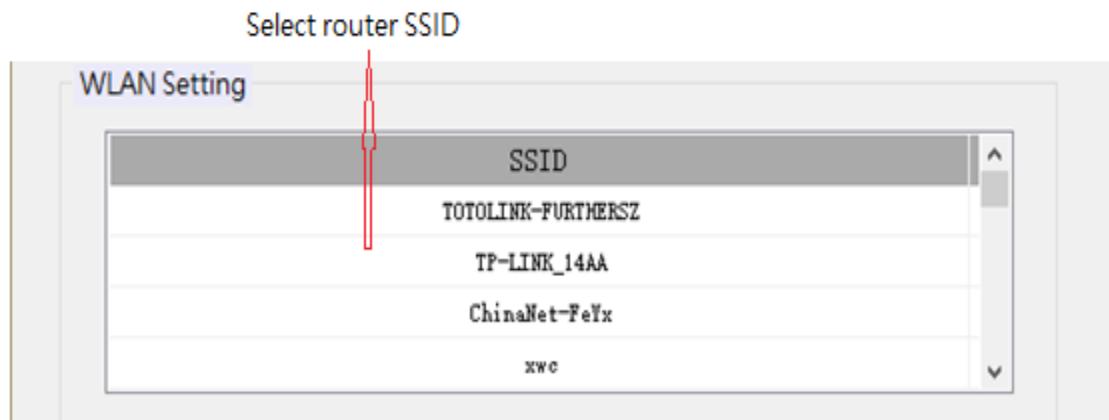


5. Make sure device list in main dialog is correct. Now it's ready to work as normal UART if you do not have a router. Work with router please goto 6.

COMx is windows assign when driver install



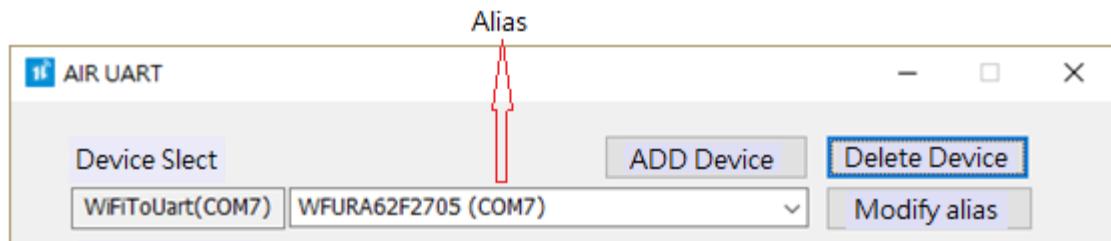
6. Select router SSID and double click it which the router you want to link . Then keyin password of your router. Let your “AIR-UR device” connect to the router by WiFi. At same time, “AIR-UR device” will close software AP mode, so your computer will connect to the (same or original) router.



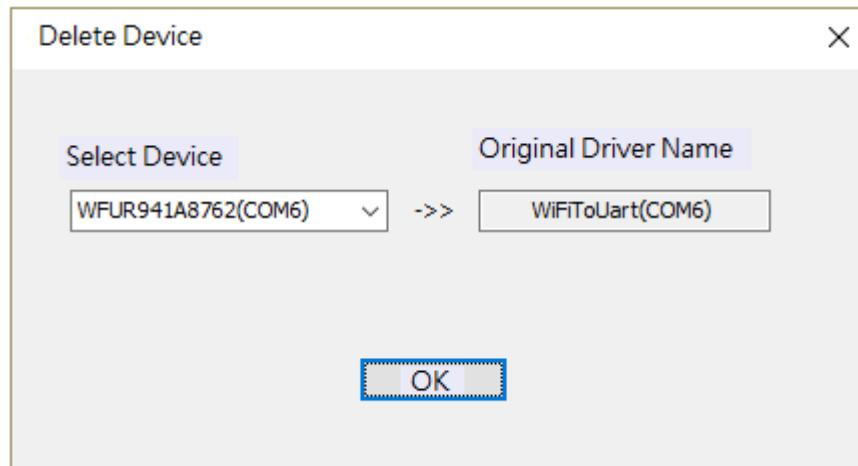
- 7. Every time work with any “AIR-UR” device, Please check “AIR UART” AP must open and on the desktop in advance!**
- 8. AIR-UR device can work with your computer only when Your computer WiFi must have same router and same segment with your “AIR-UR device” . Or computer direct connect to “AIR-UR device” if “AIR-UR device” in software AP mode (LED slow flah).**
- 9. Maximum 4 AIR-UR device in one Windows system**

## AIR UART AP Description:

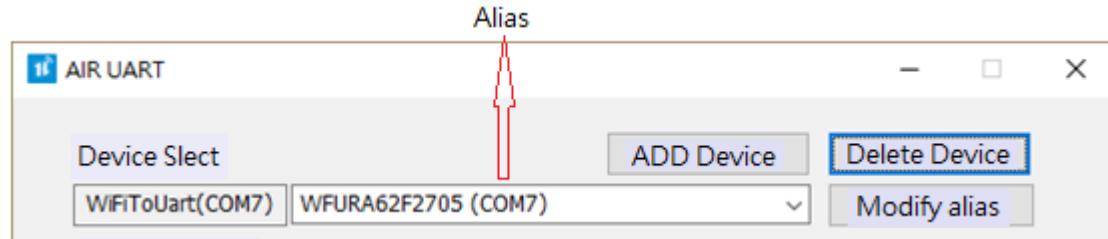
1. Device Select: You may operate the (GPIO Control, Delay and WLAN Setting) only active on the device you select.



2. Delete Device: Click this bottom, you may delete device already exist!
  - a. **Power off the device you want to delete, let AIR-UR disconnect to router or computer.**
  - b. Click (Delete Device), select device then click (OK).



3. Modify Alias: Modify select device alias only.

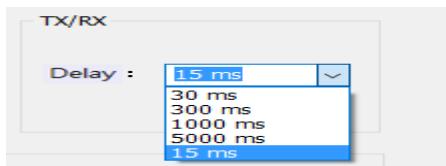


4. GPIO Control: Operate select device GPIO and get information of input toggle signal.

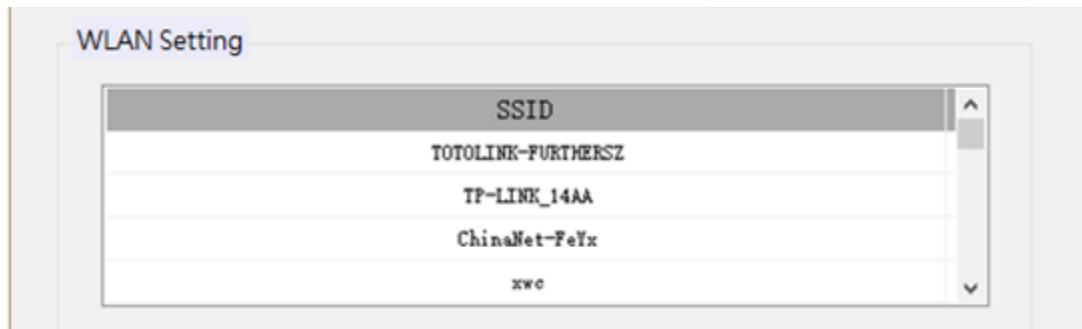


- a.  means (Enable or High level)
- b.  means (Disable or Low level)
- c. Click **Info...** , get the past information of input from file of excel.

5. Delay of RX: Less delay time get fast speed. For WiFi at least 15ms delay is recommend.



6. WLAN Setting: Select router SSID and double click it then key in password let current device (show in upper fold of dialog) connect to the router you selected.



# AIR-UR Device Hardware :

## Specification:

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Input DC	+5V 5%
Current	Normal opration 120~200ma, MAX. 400ma
Temp.	Operation: -10~40 degree C, Storage: -40degree C ~ 60degree C, Humidity: 20%~70%
Dimension:	67 * 48.3 * 21.3 mm
RS232	(TX/RX/CTS/RTS), ±6V
CMOS	(TX/RX/CTS/RTS), 3.3V CMOS Level
Baud Rate	Max 115200bps
WiFi	802.11/b/g/n., AP Mode or Client Mode
GPIO:	Output x 2      3.3V CMOS Level, driving ability 5ma
	Input x 2      3.3V CMOS Level

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## AIR-UR Outlook Interface :



## LED Indicator

There is a blue LED indicator to indicate the device status.

LED Indication	Description
Slowly flashing (every 0.3s)	Direct connection mode (factory default status).
Flashing (every 0.1s)	The device is trying to connect to the Router.
On	The device has been connected to the Router successfully.
Off	Powered off, or ready to default reset .

## DC5V:

+DC5V Input (150~200ma) , Micro USB Connector

## CMOS\_UR / RS232 Slide Switch:

RS232 signal (input/output) will through (DB9) when slide switch on (RS232) direction, otherwise signal will through (CMOS\_UR).

## GPIO:

GPIO is only control by our AP. User output (Pin1/Pin2) signal, auto get input (Pin4/Pin5) status. "V" means (H or Enable), " " means (L or Disable). Pin define please check text on cable.

## Default Reset Switch:

Under the bottom of plastic case, press it and hold on until LED off, device will go into manufacture default state , then you may connect it directly then change router by our AP if you want to.

## RS232:

Standard RS232, Signal Level (H:+6V, L:-6V)

## CMOS\_UR:

Signal is same as RS232 but signal Level (H:+3.3V, L:0V)

## Q & A :

1. How to let (AIR-UR) device connect to Router?

A: Check page 13~14

2. How to let (AIR-UR) device go to direct connect mode

A: Check page9 (default reset switch)

3. UART no function at all?

A: Check (AIR-UR) device power by LED first, then make sure you have install driver, check your AP have select right (AIR-UR) device. Last check the (slide switch) on (AIR-UR).

4. UART only (TX) working normally, (RX) seems no function?

A: check (AIR-UR) device slide switch

5. What is different between (RS232 and COMS\_UR)?

A: RS232 have (high level at +6V and low level at -6V), while CMOS\_UR have (high level at +3.3V and low level at 0V)

6. What is GPIO specification?

A: It is CMOS level output/input, output get driving ability (5~10ma). Read input status around 10ms per times.

7. How to use GPIO?

A: You may control the (output1 and output2) by our AP, and read status of (input1 and input2) by our AP. Also there is a file (device id.xls) will record the input status.

## FCC Declare:

For a Class B digital device or peripheral

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

\*\* AIR-UR Product FCC ID: 2ABL3-PTA1508